

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

MAILED

JUN 27 1996

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARY E. BAKER

Appeal No. 95-1692
Application 07/898,143¹

ON BRIEF

Before COHEN, McQUADE, Administrative Patent Judges, and
CRAWFORD, Acting Administrative Patent Judge.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

This appeal was taken from the final rejection of claims 1 through 6. The appellant has since canceled claim 6, and thus the appeal now involves claims 1 through 5, the only claims presently pending in the application.

¹ Application for patent filed June 15, 1992.

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The invention relates to a laser cutting method for applying identification markings to tire appliques. Claim 1 is illustrative and reads as follows:

1. A method for marking a tire, comprising the steps of;
 - a. providing an applique comprised of a laminate material including at least two layers, the first layer comprising an elastomeric material adapted for securement to a tire surface and the second layer comprising a substantially elastomeric material to be cut;
 - b. marking the applique by cutting at least the second layer of the laminate material with a laser beam so that the cut margins of the second layer form the configuration of the identifying indicia; and
 - c. affixing the applique to the surface of the tire at a desired location.²

The references relied upon by the examiner as evidence of obviousness are:

Williams (Williams '159) ³	4,256,159	Mar. 17, 1981
Baldvins et al. (Baldvins);	4,504,565	Mar. 12, 1985
Burke et al (Burke) ⁴	4,564,737	Jan. 14, 1986

The following reference of record is relied upon below pursuant to 37 CFR § 1.196(b):

Williams et al. (Williams '216)	2,985,216	May 23, 1961
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² In step b of claim 1, the word "the" should be deleted from the term "the identifying data" since there is no preceding reference to any identifying data.

³ The examiner misidentified this reference on page 2 in the main answer (Paper No. 10) as U.S. Patent No. 2,985,216 to Williams et al.

⁴ The application file does not indicate that the examiner has made this reference of record by listing it on a Form PTO-892 as required by MPEP § 707.05 et seq.

Claims 1 through 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Williams '159 in view of either Baldvins or Burke.⁵

Williams '159 discloses a method of marking a tire by applying thereto a tire applique 11. The applique is a laminate structure comprising a first layer 12 of elastomeric material adapted to be affixed to the tire surface, a second layer 13 of elastomeric material secured to the first layer, and a third layer of foil leaf identification elements 14 which are hot stamped into the second layer. In the hot stamping process,

. . . [a] stamping die is mounted in a heated head of a press. The tire applique is positioned on the work table of the press directly below the die. The leaf material is positioned between the die and the applique. When the die is brought into contact with the applique under pressure, the heat transfers the leaf material into depressions (FIG. 3) made in the applique by the die [column 4, lines 13 through 20].

The applique is subsequently affixed to the surface of the tire at a desired location.

As conceded by the examiner (see page 3 in the main answer), the method disclosed by Williams '159 does not meet the limitations in independent claim 1 relating to the laser cutting

⁵ The examiner combined the Williams '159 and Burke references for the first time in a new ground of rejection set forth in the main answer.

step. The examiner's reliance on either Baldvins or Burke to cure this deficiency is not well taken.

Baldvins discloses a method of marking an object with identification data wherein the object is coated with a transparent or translucent material which turns white when exposed to high intensity radiation. The coating is masked by a stencil defining the identification data and then exposed to a suitable high intensity radiation source such as a CO₂ laser. Baldvins describes this method as an improvement over prior art methods of marking an object wherein the object is coated with a material of contrasting color and the coating is then cut by a laser in a predetermined identification pattern to expose the surface of the object through the coating (see the background discussion in columns 1 and 2).

Burke discloses a method of marking a tread pattern on a tire mold block or a prototype tire wherein a computer controlled pulsing laser is used to form a series of dot-like depressions defining the pattern. The tread pattern is then completed by a hand carving procedure using the depressions as a guide.

According to the examiner, it would have been obvious to one of ordinary skill in art in view of either Baldvins or Burke to modify the tire marking method disclosed by Williams '159 by incorporating a laser cutting step of the type recited in

claim 1 (see pages 3 through 6 in the main answer). The combined teachings of the applied references, however, do not justify the examiner's position. As indicated above, the method disclosed by Williams '159 entails the stamping of foil leaf identification elements into an elastomeric layer of a tire applique. There is no cutting step involved in this process. It is therefore not apparent, nor has the examiner specifically explained, how or why Baldvins or Burke would have suggested modifying the Williams '159 method in the manner proposed.

Accordingly, we shall not sustain the standing of 35 U.S.C. § 103 rejection of claim 1, or of claims 2 through 5 which depend therefrom, as being unpatentable over Williams '159 in view of either Baldvins or Burke.

The following new rejection is entered pursuant to 37 CFR § 1.196(b).

Claims 1 through 5 are rejected under 35 U.S.C. § 103 as being unpatentable over Williams '216 in view of Baldvins.

Williams '216 discloses a method of marking a tire comprising the steps of providing a laminated applique composed of elastomeric layers 11, 12 and 13 of contrasting colors and an elastomeric layer 16 which is adapted to be cold vulcanized to the tire, marking the applique by cutting apertures in the layers so that the cut margins form the configuration of identifying indicia, and affixing the applique to the surface of a tire at a

desired location. Before being affixed to the tire, the applique is provided with a backing layer 17 which is removable from layer 16. Williams '216 teaches that

[w]hen the applique is so affixed to the tire, the contrast in color between the tire wall which is visible through the apertures and the outer surface of the applique which is normally of a contrasting color, causes the identifying indicia defined by the aperture margins to be strikingly defined and clearly visible (column 3, lines 10 through 15).

The tire marking method disclosed by Williams '216 meets all of the limitations in claims 1 and 2 except for that in claim 1 requiring the layer cutting step to be performed by a laser beam. Williams '216 does not specify how the applique layers disclosed therein are to be cut.

As noted above, Baldvins discloses that it is known in the prior art to mark an object by using a laser to cut a predetermined identification pattern through a coating of contrasting color on the object so as to expose the underlying surface of the object. It would have been obvious to one of ordinary skill in the art in view of this knowledge to utilize a laser cutting procedure of the type recited in claim 1 to perform the layer cutting step disclosed by Williams '216. The self-evident benefits of laser cutting technology, such as, for example, the ready capability of operating the laser in accordance with various cutting requirements, would have provided

the artisan with ample suggestion to so modify the Williams '216 method.

With regard to the recitation in claim 3 of cutting only partially through the laminate material, such would have been an obvious modification of the Williams '216 method in light of the multiple layers 11, 12 and 13 of contrasting colors in the Williams '216 applique. One of ordinary skill in the art certainly would have appreciated that the tire marking objective of the Williams '216 method could be realized, while economizing the cutting step and producing a more stable applique, by cutting only partially through such a laminate structure.

As for the particular laser cutting features recited in claims 4 and 5, such would have been obvious matters of design choice to one of ordinary skill in the art. In this regard, the record does not indicate that such features solve a stated problem or present a new or unexpected result (see In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 8-9 (CCPA 1975)), and the appellant has admitted that laser marking systems embodying these features are conventionally known (see page 8 in the specification).

In summary and for the above reasons:

a) the decision of the examiner to reject claims 1 through 5 under 35 U.S.C. § 103 as being unpatentable over

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